

### **Amendments to the Specification**

Please amend the specification as follows:

In paragraph [0033], please make the following changes:

FIG. 3B is a frequency diagram 340 of the frequency bands associated with the analysis tree ~~340~~ 300 of FIG. 3A. The signal node ( $w_2$ ) 328, which represents a first level decomposition node, has been decomposed to phase differentials between  $\pi/2$  and  $\pi$ . The signal node ( $w_1$ ) 330, which represents a second level decomposition node, has been decomposed to phase differentials between  $\pi/4$  and  $\pi/2$ . The signal node ( $w_0$ ) 332, which represents a third level decomposition node, has been decomposed to phase differentials between  $\pi/8$  and  $\pi/4$ . And the signal node ( $v_0$ ) 334, which also represents a third level decomposition node, has been decomposed to phase differentials between 0 and  $\pi/8$ .

In paragraph [0043], please make the following changes:

FIG. 5B is a wavelet packet decomposition diagram 530 of nodes 3, 7 and 16 for an example short pulse width signal. NODE 3 is represented by signals 532. NODE 7 is represented by signals 534. And NODE 16 is represented by signals 536. The vertical axes for these signal charts are relative values, and the horizontal axis for these signal charts represents the coefficient index. For signals 532, the value ranges from 0.5 to  $-0.5$ , and the coefficient index ranges from 0 to 35. For signals 534, the value ranges from ~~0.5~~ 0 to ~~-1~~ -0.5, and the coefficient index ranges from 0 to 30. For signals 536, the value ranges from 0.5 to  $-0.5$ , and the coefficient index ranges from 0 to 25. It is again noted that the coefficient index range is dependent upon the original input length of the data.

In paragraph [0044], please make the following changes:

FIG. 5C is a wavelet packet decomposition diagram 550 of nodes 3, 7 and 16 for an example long pulse width signal. NODE 3 is represented by signals 552. NODE 7 is represented by signals 554. And NODE 16 is represented by signals 556. The vertical axes for these signal charts are relative values, and the horizontal axis for these signal charts represents the coefficient index. For signals 552, the value ranges from 0.5 to  $-0.5$ , and the coefficient index ranges from 0 to 90.

For signals 554, the value ranges from 0.5 to  $-0.5$ , and the coefficient index ranges from 0 to ~~60~~ 90. For signals 556, the value ranges from 0.5 to  $-0.5$ , and the coefficient index ranges from 0 to ~~40~~ 90. As above, it is noted that the coefficient index range is dependent upon the original input length of the data.